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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No. 003248.00038

In re U.S. Patent Application of MULLIGAN et al.)
Application No. 10/005,084)
Filed: December 4, 2001) Examiner: Unassigned
For: **ALIGNED COMPOSITE STRUCTURES FOR**) Art Unit: 1774
MITIGATION OF IMPACT DAMAGE AND)
RESISTANCE TO WEAR IN DYNAMIC)
ENVIRONMENTS)

Assistant Commissioner for Patents
Washington DC 20231

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INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to 37 CFR §§1.97-1.98, applicants wish to make the following references of record in the above-identified application. Copies of the references cited below are enclosed. The references also are listed on the enclosed and completed Form PTO/SB/08A.

This Information Disclosure Statement is filed under 37 CFR §1.97(b) within three months of this application's filing date and/or before the mailing of a first Office Action on the merits. Accordingly, there is no fee due for filing this Information Disclosure Statement.

REFERENCES

U.S. Patents

1.	6,063,502	Sue, J. Albert, et al.	May 16, 2000
2.	5,645,781	Popovic', Dragan, et al.	July 8, 1997
3.	4,772,524	Coblentz, William S.	September 20, 1988

Foreign


1.	WO 0153059	Goretta, Kenneth C., et al.	July 26, 2001
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Non-Patent Literature Documents

1. J.J. BRENNAN and K. M. PREWO, "High-Strength Silicon Carbide Fibre Reinforced Glass-Matrix Composites," *J. Mater. Sci.*, 15 463-68 (1980).
2. J.J. BRENNAN and K. M. PREWO, "Silicon Carbide Fibre Reinforced Glass-Ceramic Matrix Composites Exhibiting High Strength and Toughness," *J. Mater. Sci.*, 17 2371-83 (1982).
3. G. HILMAS, et al., "Fibrous Monoliths: Non-Brittle Fracture from Powder-Processed Ceramics," *Mat. Sci. & Eng. A.*, 195, 263-268 (1995).
4. G.E. HILMAS, et al., "SiC and Si₃N₄ Fibrous Monoliths: Non-Brittle Fracture From Powder Processed Ceramics Produced by Coextrusion," Vol. 51 *Ceramic Processing Science and Technology*, pp. 609-14 (1993).
5. H. KODAMA, et al., "Silicon Carbide Monofilament-Reinforced Silicon Nitride or Silicon Carbide Matrix Composites," *J. Am. Ceram. Soc.*, 72 [4] 551-58 (1989).
6. D. KOVAR, et al., "Fibrous Monolithic Ceramics" *J. Am. Ceram. Soc.*, 80, [10] 2471-2487 (1997).
7. P.J. LAMICQ, et al., "SiC/SiC Composite Ceramics," *Am. Ceram. Soc. Bull.*, 65 [2] 336-38 (1986).
8. T. I. MAH, et al., "Recent Developments in Fiber-Reinforced High Temperature Ceramic Composites," *Am. Ceram. Soc. Bull.*, 66 [2] 304-08 (1987).
9. K.M. PREWO, "Fiber-Reinforced Ceramics: New Opportunities for Composite Materials," *Am. Ceram. Soc. Bull.*, 68 [2] 395-400 (1989).
10. J.R. STRIFE, et al., "Status of Continuous Fiber-Reinforced Ceramic Matrix Composite Processing Technology," *Ceram. Eng. Sci. Proc.*, 11 [7-8] 871-919 (1990).

Respectfully submitted

Date: March 15, 2002


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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 1 of 1

Complete if Known

Application Number	10/005,084
Filing Date	December 4, 2001
First Named Inventor	Mulligan
Group Art Unit	1774
Examiner Name	Unassigned
Attorney Docket Number	003248.00038

U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code ² (if known)			
		US 6,063,502	May 16, 2000	Sue, et al.	
		US 5,645,781	July 8, 1997	Popovic, et al.	
		US 4,772,524	Sept. 20, 1988	Coblentz, William S.	

FOREIGN PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)				
		WO 01/53059 A1	7/26/2001	Goretta, et al.		

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		J. J. BRENNAN and K. M. PREWO, "High-Strength Silicon Carbide Fibre Reinforced Glass-Matrix Composites," <i>J. Mater. Sci.</i> , 15 463-68 (1980)	
		J.J. BRENNAN and K. M. PREWO, "Silicon Carbide Fibre Reinforced Glass-Ceramic Matrix Composites Exhibiting High Strength and Toughness," <i>J. Mater. Sci.</i> , 17 2371-83 (1982)	
		G. HILMAS, et al., "Fibrous Monoliths: Non-Brittle Fracture from Powder-Processed Ceramics," <i>Mat. Sci. & Eng. A.</i> , 195, 263-268 (1995)	
		G.E. HILMAS, et al., "SiC and Si ₃ N ₄ Fibrous Monoliths: Non-Brittle Fracture From Powder Processed Ceramics Produced by Coextrusion," Vol. 51 <i>Ceramic Processing Science and Technology</i> , pp. 609-14 (1993)	
		H. KODAMA, et al., "Silicon Carbide Monofilament-Reinforced Silicon Nitride or Silicon Carbide Matrix Composites," <i>J. Am. Ceram. Soc.</i> , 72 [4] 551-58 (1989)	
		D. KOVAR, et al., "Fibrous Monolithic Ceramics" <i>J. Am. Ceram. Soc.</i> , 80, [10] 2471-2487 (1997)	
		P.J. LAMICQ, et al., "SiC/SiC Composite Ceramics," <i>Am. Ceram. Soc. Bull.</i> , 65 [2] 336-38 (1986)	
		T.I. MAH, et al., "Recent Developments in Fiber-Reinforced High Temperature Ceramic Composites," <i>Am. Ceram. Soc. Bull.</i> , 66 [2] 304-08 (1987)	
		K.M. PREWO, "Fiber-Reinforced Ceramics: New Opportunities for Composite Materials," <i>Am. Ceram. Soc. Bull.</i> , 68 [2] 395-400 (1989)	
		J.R. STRIFE, et al., "Status of Continuous Fiber-Reinforced Ceramic Matrix Composite Processing Technology," <i>Ceram. Eng. Sci. Proc.</i> , 11 [7-8] 871-919 (1990)	

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